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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/581,911	06/19/2000	JAN ERIKSSON	49549-60259	4412
466	7590	06/14/2006	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			VALENTI, ANDREA M	
			ART UNIT	PAPER NUMBER
			3643	

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/581,911

Applicant(s)

ERIKSSON, JAN

Examiner

Andrea M. Valenti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-12, 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,508,058 to Jakobson et al in view of U.S. Patent No. 4,613,939 to Paine and U.S. Patent No. 5,754,451 to Williams.

Regarding Claims 1-4, 8-12, 19, 20, Jakobson teaches an animal related apparatus, comprising a robot (Jakobson #8) for performing an animal related operation (Jakobson abstract first line, milking cows), the robot being associated with a control means (Jakobson Col. 6 line 26-30 and #5), and at least one animal related device (Jakobson #6) associated with the control means, the robot being provided with a robot arm (Jakobson #15) adapted to move the animal related device towards an animal. Jakobson teaches the animal related device is a teat location device (Jakobson #14); a teat cleaning device (Jakobson Fig. 6 #18) the apparatus further comprises a gate means (Jakobson #4) for restricting movement of an animal from an animal space; the gate means being opened and closed by means of driving means.

Jakobson teaches machinery components of a milking apparatus i.e. robot, robot arm, animal related device, animal related operation, teat location device, driven gate, robot drive means, and teat cleaning; but, is silent on a registering means provided for

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registering a cumulative running value, the control means generating a signal when a predetermined threshold value has been reached; and the predetermined threshold value is set for each of the devices. However, Paine teaches establishing a predetermined threshold value for machinery components, registering the cumulative running value, and signaling when the threshold is reached (Paine abstract; Col. 1 line 7-11, line 23-29, line 50-53; and Col. 2 line 55-60). It would have been obvious to one of ordinary skill in the art to modify the teachings of Jakobson with the teachings of Paine at the time of the invention for the advantage of predicting failures so that servicing can be scheduled during periods in which productivity will be less affected and for preventing catastrophic failures as taught. In other words, one of ordinary skill in the art would be motivated to modify the teachings of Jakobson with the teachings of Paine since Jakobson teaches a system composed of a plurality of mechanical devices that inherently require maintenance and Paine teaches a means for providing a service reminder for mechanical devices for the advantage of providing preventative maintenance measures to reduce unscheduled down time of the equipment. It is merely an engineering design choice to select which mechanical device should be monitored, one of ordinary skill may select the devices that are used the most or the device that is the most expensive to replace, etc.

Furthermore, Paine teaches the general concept of monitoring predetermined threshold value running times for mechanical devices. However, Williams teaches it is known to monitor the components of a mechanical system individually in conducting preventative maintenance practices (Williams Col. 2 line 1-10). It would have been

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obvious to one of ordinary skill in the art at the time of the invention to further modify the teachings of Jakobson with the teachings of Williams to select and apply the concept to the at least one animal related device, the robot, the complete animal related operation since this is merely an engineering design choice involving the selection of particular mechanical devices to be monitored. In other words, it would have been obvious to one of ordinary skill in the art to further modify the teachings of Jakobson at the time of the invention since the modification is merely the selection of known mechanical devices of the system to be monitored to reduce operational down time. Separately monitoring the selected mechanical devices does not provide a patentable distinction over the teachings of the prior art since it is merely a data management practice.

Paine and Williams teach storing date. Based on the broad nature of the limitation it can also be interpreted that Paine and Williams both teach storing the cumulative running value and adding it to the previously, stored value (Williams Col. 4 line 38-54 and Fig. 5 #90; Paine Col. 6 line 15-25). It is notoriously well-known in data management practices to store data, collect cumulative data and add the cumulative data to the stored data for complete best management maintenance practice history. Paine teaches that programmers of ordinary skill in the art can develop specific sets of program instructions and it would merely be an engineering design choice to have the program store the cumulative data for each device so that the data could be used in a reliability study of the equipment.

Examiner takes official notice that it is old and notoriously well-known for maintenance personnel to keep data logs of when a machine has been serviced. For

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example, when motors for large generators are serviced the maintenance personnel records the odometer reading and the date. Merely automating this known process for complete historical maintenance records of the machine does not present a patentably distinct limitation. Therefore, it would have been obvious to one of ordinary skill in the art to further modify the teachings of Jakobson at the time of the invention since the modification is merely an engineering design choice of data management practices and does not present a patentably distinct limitation over the teachings of the cited prior art of record. Since applicant has merely claimed apparatus claims and not method claims, the computer of Paine is capable of being programmed to store the cumulative data.

Claims 5-7 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,508,058 to Jakobson et al in view of U.S. Patent No. 4,613,939 to Paine and U.S. Patent No. 5,754,451 to Williams as applied to claim 1 and 12 above, and further in view of WO 96/36212 to Innings et al.

Regarding Claim 5, Jakobson as modified teaches that the animal related device has milking equipment with a teat-cup (Jakobson Fig. 6) and that the control means being adapted to register the cumulative running value of the components of the apparatus, but is silent on how the teat-cup operates. However, Innings teaches a teat-cup provided with a shell and a liner forming an intermediate space (Innings #6), the space being connectable to a source of vacuum (Innings #13) via a pulsator (Innings #17) being associated with the control means (Innings #20).

It would have been obvious to further modify the teachings of Jakobson as modified by Paine with the teachings of Innings at the time of the invention since it is old and notoriously well-known in the art of animal husbandry to have a lined pulsating teat-cup with a vacuum in an automated milking configuration and the teachings of Innings is merely an alternate equivalent teat-cup configuration selected for efficient automated milking procedures. Furthermore, it would have been obvious to one of ordinary skill in the art to monitor the pulsator since this is merely an additional mechanical device that requires routine maintenance.

Regarding Claim 18, Jakobson as modified teaches a running value and a pulsator, but is silent on the running value being the number of pulsations generated by the pulsator. However, it would have been obvious to one of ordinary skill in the art to further modify the teachings of Jakobson at the time of the invention since the modification is merely an engineering design choice involving the selection of an alternate equivalent interval indicator based on a manufactures suggested maintenance schedule.

### ***Response to Arguments***

Applicant's arguments filed 05 April 2006 have been fully considered but they are not persuasive.

The Jakobson reference was cited merely to teach the notoriously old and well-known components of an automated milking system. The Paine reference was cited to teach that it is known to select mechanical devices and to register a predetermined threshold value and to signal when the cumulative running value has reached the

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predetermined threshold value as a preventative maintenance system. Examiner maintains that it is merely an obvious engineering design choice to select one or more mechanical devices of a system to apply these preventative maintenance practices to. Keeping in mind that applicant has not claimed methods steps, but has claimed apparatus claims. The modification is merely a duplication of a known registering means for a multiple effect to monitor multiple mechanical devices for a multiple effect and does not present a patentably distinct limitation. One of ordinary skill in the art would be motivated to individually monitor the mechanical devices of the system since each of the devices maybe service by a different vendor e.g. one vendor may service the robot/robot arm and another vendor may service the teat cups. Paine teaches the general knowledge of utilizing preventative maintenance to monitor mechanical devices, whether it an entire system collectively or a plurality of mechanical devices that make up the system is merely an obvious engineering design choice.

Only independent claim 1 has been amended to include that the cumulative running values are added to previous, stored cumulative running values. Examiner maintains that this modification is merely a known data management practice for maintaining complete data records of a system to use to perform reliability studies of the equipment. It is merely an obvious engineering design choice.

The limitations presented by applicant are merely known preventative maintains practices applied to a known automated mechanical milking device and do not present a patentable distinction over the teachings of the cited prior art of record.



***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 571-272-6895. The examiner can normally be reached on 7:00am-5:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

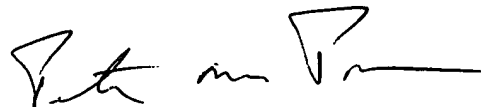
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Andrea M. Valenti  
Patent Examiner  
Art Unit 3643

08 June 2006



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6/8/06